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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,131	12/05/2003	Eugenio Bortone	CFLAY.00222	8987
22858	7590	07/21/2006	EXAMINER	
CARSTENS & CAHOON, LLP P O BOX 802334 DALLAS, TX 75380			EASHOO, MARK	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/729,131

Applicant(s)

BORTONE, EUGENIO

Examiner

Mark Eashoo, Ph.D.

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,7-11,13 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,7-11,13 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102 & 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-2, 4, 8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hentschel (US Pat. 5,266,260).

Regarding claims 1 and 4: Hentschel '260 teaches the claimed extrusion process comprising a step of: applying a resistance or hindering force opposite to the direction of extrusion (eg. friction) to an extrudate downstream of the point wherein the extrudate wherein the extrudate is at a temperature that allows plastic deformation and sagging (1:45-50) in a containment vessel (1:35-2:10; 4:55-65; 5:5-50; and Fig. 1); forming the extrudate into a coil (Figs. 1 and 3); and a die that is stationary during the act of extrusion (Fig. 1, element 9).

It is inherent that the extrudate is cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage in order to form the desired shape of the extrudate, such that space exists between deposited portions of an extruded billet but is yet deformable (5:15-30), otherwise that extrudate would tend to flow under its own weight in the containment vessel and thereby under the influence of gravity would fill the mold space like a liquid. Nonetheless, if the extrudate is not cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage then a person of ordinary skill in the art would have found it obvious to have done so in order to keep the helical shape of the billet in the containment vessel, until further molding pressure is applied, and would have been motivated to do so to keep the fibers aligned in a helical manner thereby maintaining molecular and fiber orientation and mechanical strength.

Regarding claims 2 and 8: Hentschel '260 also teaches that: a tubular containment device which is generally axially aligned to the extrudate (Fig. 1).

Claims 9-11, 13, 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hentschel (US Pat. 5,266,260).

Regarding claims 9-10, 13: Hentschel '260 teaches the claimed extrusion process comprising a step of: applying a resistance or hindering force opposite to the direction of extrusion (eg. friction) to an extrudate downstream of the point wherein the extrudate wherein the extrudate is at a temperature that allows plastic deformation and sagging (1:45-50) in a containment vessel (1:35-2:10; 4:55-65; 5:5-50; and Fig. 1); forming the extrudate into a coil (Figs. 1 and 3); and a die that is stationary during the act of extrusion (Fig. 1, element 9).

It is inherent that the extrudate is cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage in order to form the desired shape of the extrudate, such that space exists between deposited portions of an extruded billet but is yet deformable (5:15-30), otherwise that extrudate would tend to flow under its

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own weight in the containment vessel and thereby under the influence of gravity would fill the mold space like a liquid. Nonetheless, if the extrudate is not cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage then a person of ordinary skill in the art would have found it obvious to have done so in order to keep the helical shape of the billet in the containment vessel, until further molding pressure is applied, and would have been motivated to do so to keep the fibers aligned in a helical manner thereby maintaining fiber orientation and mechanical strength (1:30-35).

Regarding claims 11 and 16: Hentschel '260 also teaches that: a tubular containment device which is generally axially aligned to the extrudate (Fig. 1).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hentschel (US Pat. 5,266,260).

Regarding claim 7: Hentschel '260 teaches the claimed extrusion process comprising a step of: applying a resistance or hindering force opposite to the direction of extrusion (eg. friction) to an extrudate downstream of the point wherein the extrudate wherein the extrudate is at a temperature that allows plastic deformation and sagging (1:45-50) in a containment vessel (1:35-2:10; 4:55-65; 5:5-50; and Fig. 1); forming the extrudate into a coil (Figs. 1 and 3); a series of peripheral containment vessels (Fig. 1); and a die that is stationary during the act of extrusion (Fig. 1, element 9).

It is intrinsic that the extrudate is cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage in order to form the desired shape of the extrudate, such that space exists between deposited portions of an extruded billet but is yet deformable (5:15-30), otherwise that extrudate would tend to flow under its own weight in the containment vessel and thereby under the influence of gravity would fill the mold space like a liquid. Nonetheless, if the extrudate is not cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage then a person of ordinary skill in the art would have found it obvious to have done so in order to keep the helical shape of the billet in the containment vessel, until further molding pressure is applied, and would have been motivated to do so to keep the fibers aligned in a helical manner thereby maintaining molecular and fiber orientation and mechanical strength.

Hentschel '260 does not teach a placing number of extruder dies in series. Nonetheless, Official Notice is given that having an extra die available for an extrusion apparatus is well known in the molding art.

At the time of invention a person of ordinary skill in the art would have found it obvious to have placed a number of extruder dies in series (eg. one in use and one spare), as commonly practiced in the art, in the process of Hentschel '260, and would have been motivated to do so in order to reduce operational downtime when cleaning or maintenance is required on the extrusion die.

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*Allowable Subject Matter*

Claims 17-19 are allowed as they are claims that were objected to in the prior Office action and now re-written in independent form.

*Response to Arguments*

Applicant's arguments filed 12-MAY-2006 have been fully considered but they are not persuasive.

A.) Applicant's argument directed to a stationary dies has been substantially responded to in the above rejection. The examiner notes that the die of Hentschel '260 is stationary as it is shown as directly connected to the extruder. Furthermore, it is noted that Hentschel '260 teaches rotatable mold or containment vessels, but these devices are also stationary during the act of extrusion

*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

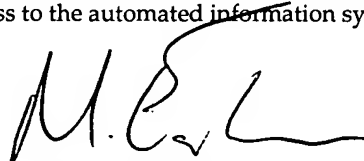
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Mark Eashoo, Ph.D.  
Primary Examiner  
Art Unit 1732

17 July 2006  
me

17/Jul/06